



The Value of Nature-Based Enterprise

A Design Exchange Partnership between the Innovation School at the Glasgow School of Art and Glasgow City Council's Centre for Civic Innovation, supported by the Design Museum's Future Observatory, the Knowledge Transfer Partnership and funded by AHRC.

Authored by Dr Michael Pierre Johnson

Supported by Dr Paul Smith

**INNOVATION
SCHOOL
THE GLASGOW
SCHOOL OF ART**

**CENTRE
FOR
CIVIC
INNOVATION**



“Nature-based enterprises are defined as enterprises, engaged in economic activity, that use nature sustainably as a core element of their product or service offering for the planning, delivery and stewardship of nature-based solutions.”

~
naturebasedenterprise.eu

INTRODUCTION

Nature-based businesses and social enterprises (NBEs) have gained increasing development support by local authorities and regional governance in line with global efforts to achieve sustainability targets outlined by the United Nation's Sustainable Development Goals.

In Glasgow, one such initiative included a pilot Nature-Based Accelerator programme, delivered by Good Ideas as part of Glasgow City Council's (GCC) EU-supported H2020 Connecting Nature project, which supported eleven NBEs through summer 2021 and who were launched at a final event in September 2021.

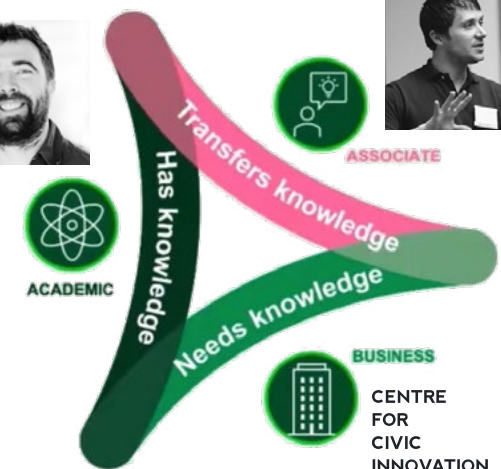
This short report presents the insights and outcomes of a short design-led evaluation project, *The Value of Nature-Based Enterprise*, which mapped and modelled relational forms of sustainable development for newly-launched NBEs. The aim for this evaluative project, post Glasgow hosting COP26, was to evidence the progress and barriers in development for NBEs, in relation to their local enterprise networks and environments. This resulted in the co-design of strategic proposals inclusive of NBEs and the roles they can play in Glasgow's sustainable development goals.

This evaluation project was supported through an innovative Design Exchange Partnership (DEP) pilot, funded by the Arts and Humanities Research Council (AHRC) in association with the Design Museum's Future Observatory and in collaboration with the Knowledge Transfer Network (KTN). The project partnered design researchers at the Innovation School at The Glasgow School of Art with GCC's Centre for Civic Innovation to provide design-led developmental evaluation on sustainable development for the newly launched NBEs with key stakeholders.

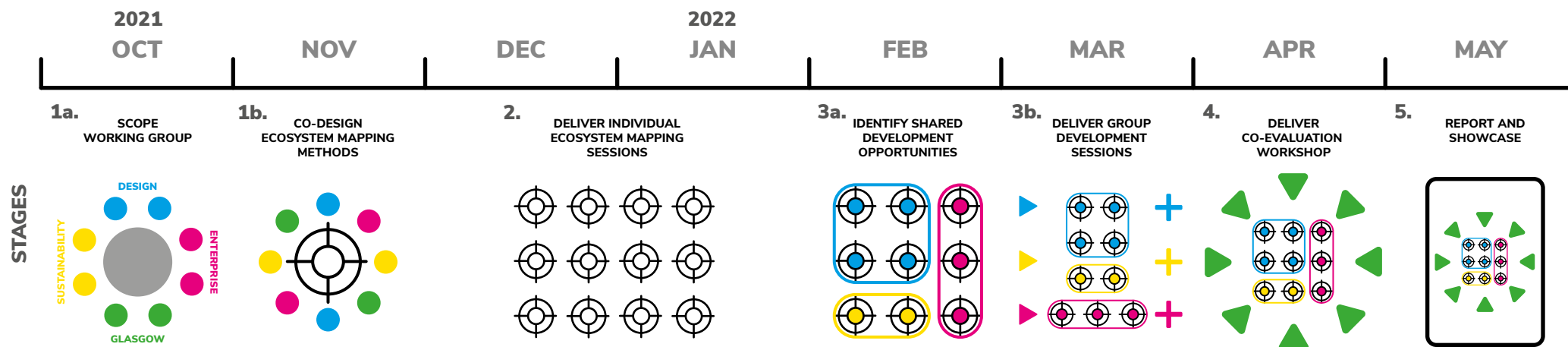
Dr Paul Smith
Circular Economy
Research Fellow



Dr Michael P Johnson
Creative Economy
Leadership Fellow



WHAT WE DID



A **Working Group** was formed to agree and guide the evaluative objectives:

Helen Denny, Business Development Lead and Facilitator at The Melting Pot, who delivered the NBA programme;

Dr Paul Smith, Research Fellow in the Circular Economy at the Innovation School, The Glasgow School of Art;

Dr Isabella Guerrini de Claire, COO for Aurora Sustainability Group;

Iain Findlay, CEO for Aurora Sustainability Group;

John Campbell, Development Officer at the Centre for Civic Innovation, Glasgow City Council;

Sean Kelly, Senior Project Officer for H2020 Connecting Nature, Glasgow City Council.

CORE OBJECTIVES

to learn the progress and barriers of NBEs supported through the NBA

to develop a mapping method based on 'sustainable development'

to map Glasgow's NBE ecosystem

to develop strategic sustainable proposals for Glasgow NBEs

to pilot a process of developmental evaluation with CCI / GCC

to contribute evidence and learning to support future NBAs and NBEs

The Working Group supported the **co-design of mapping templates** to capture the progress of NBEs supported through the NBA programme in relation to their networks.

Eight NBEs were recruited to undergo **2-3 hour mapping sessions** over Zoom and Miro, using the mapping templates to capture not just their development, but their current and potential role in sustainable development.

The **mapped NBEs were co-analysed** with the Working Group to identify Glasgow's NBE eco-system, as a whole, and key opportunities for strategic sustainable development.

Strategic sustainable development proposals were then co-designed and co-evaluated with the Working Group, key stakeholders and NBE participants.

THE MAPPING TEMPLATES

Two frameworks were identified to visually map and capture each NBE's progress and potential for sustainable development

CREATIVE GROWTH MODEL (Johnson et. al, 2019)

The Creative Growth Model (top right) identifies four perspectives of stakeholder interests in entrepreneurial activity:

economic, how enterprise is modelled sustainably;
cultural, how enterprise interacts with communities or sector;
social, how enterprise brings people and things together;
 and **practice**, how enterprise establishes ways of working.

This then frames four areas of relational growth based on the identified interactions of the NBEs with their networks of actors:

network growth, new and enhanced relationships and communities;
knowledge growth, new and enhanced skills, expertise and capacity;
value growth, new and enhanced products, services, experiences, models and impacts;
 and **market growth**, new and enhanced audiences, constituents and communication.

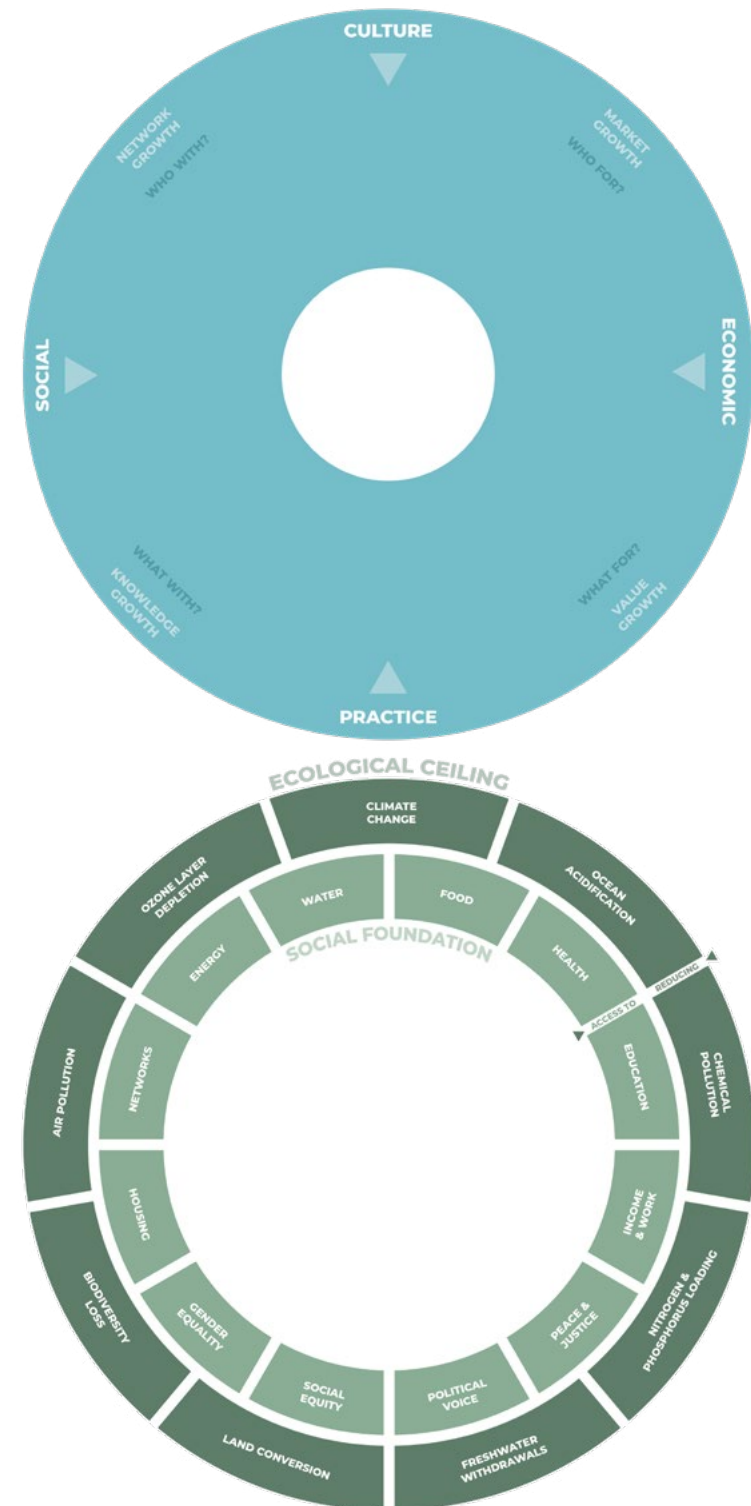
This model was identified as able to capture the relevant progress and barriers of the NBEs based on relationships at the actor-level.

DOUGHNUT ECONOMICS MODEL (Kate Raworth, 2017)

In order to change economic paradigms of enterprise from growth-driven GDP to ones of responsible sustainability, we need new ways of framing and understanding value. Kate Raworth's *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* offers this new way.

The project used her Doughnut Economics model to capture the categories of development and impact framing each NBE; where they saw their enterprise was currently having, or had the potential to have, an impact on Glasgow's sustainable development.

Overviews of each NBEs development are mapped in summary form using the Creative Growth Model in the following pages. Progress is mapped within the inner circle, potential development mapped in white in the outer circle and barriers mapped in black. This is then followed by an overall Glasgow NBE eco-system map and doughnut economics map.



HALO ERZ

Delivers landscape and green-based responses to societal and environmental trauma, with pilot product HALO Gardens (Healthworkers & Loved Ones) .

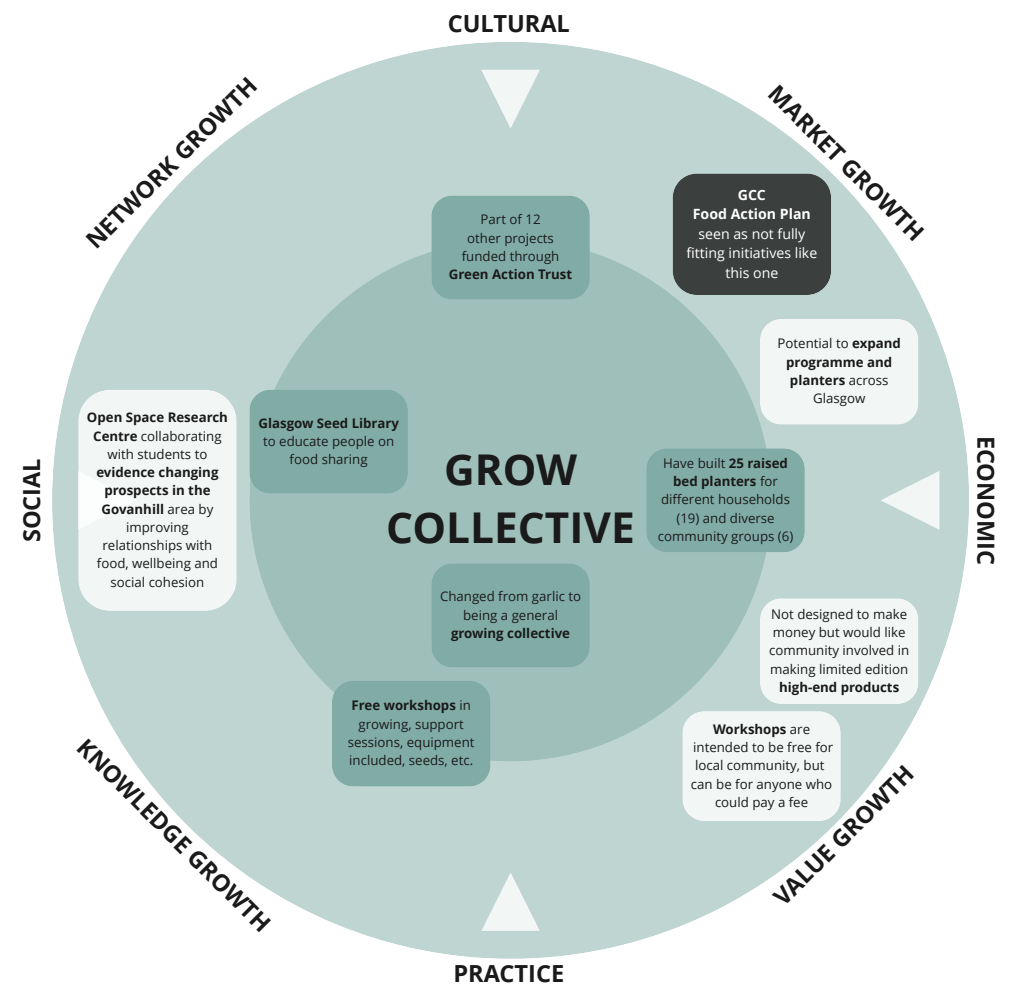
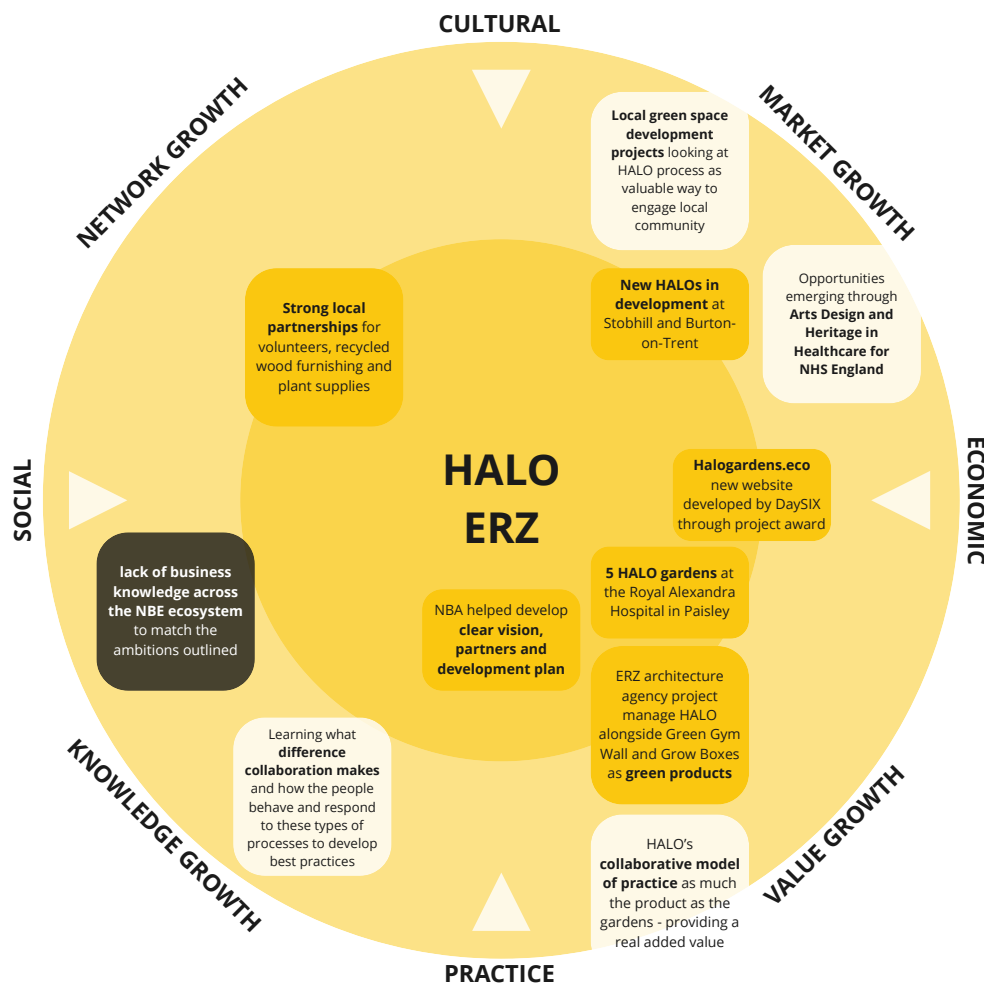
These are circles of planting which enable social distancing – and in fact recognise and celebrate this response to the pandemic in a green space context.

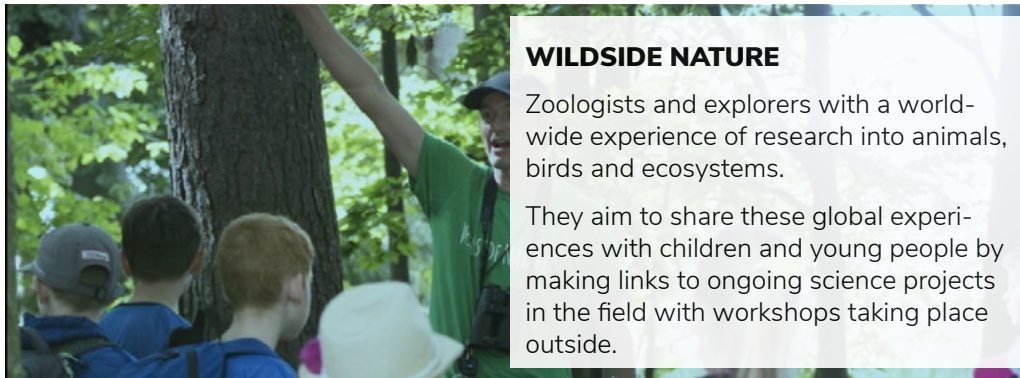


GROW COLLECTIVE

Coordinator of The People's Pantry, part of Govanhill Baths Community Trust, starting a Govanhill Growing Collective.

This aims to support people in the community to become home food growers and come together to ferment the produce. Profits would be used to enable more participants to learn about food.

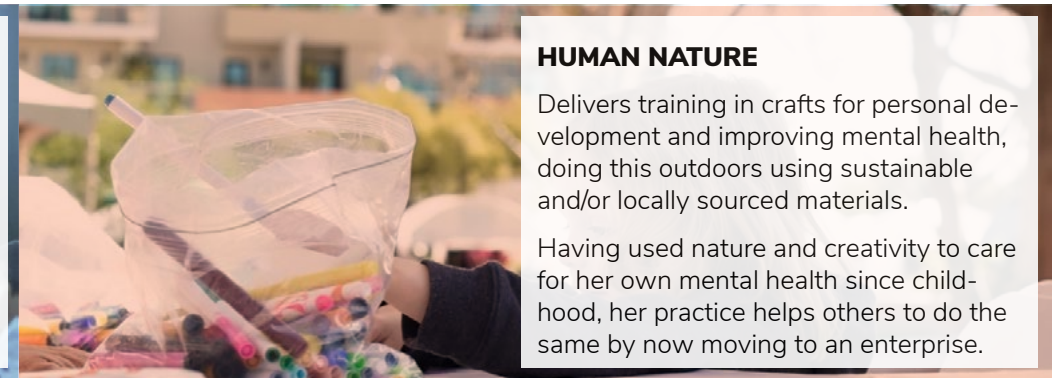




WILDSIDE NATURE

Zoologists and explorers with a world-wide experience of research into animals, birds and ecosystems.

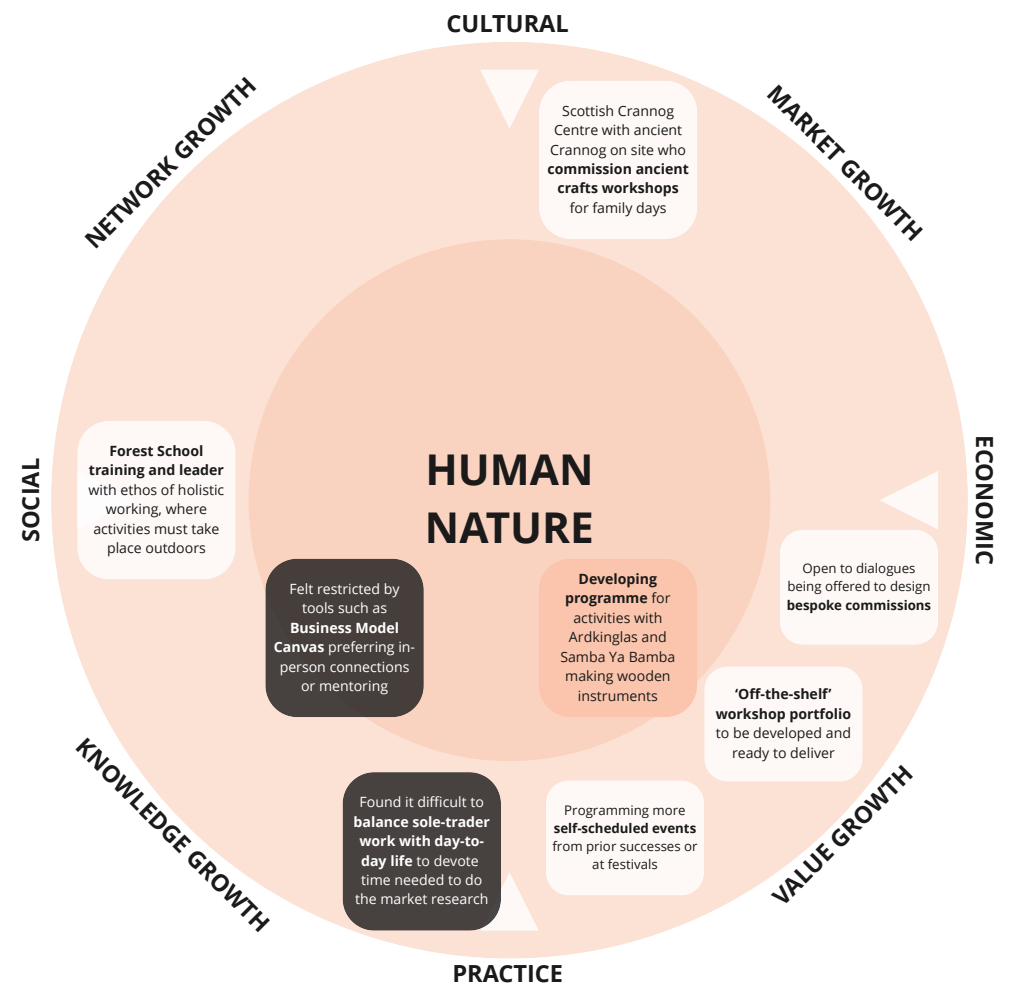
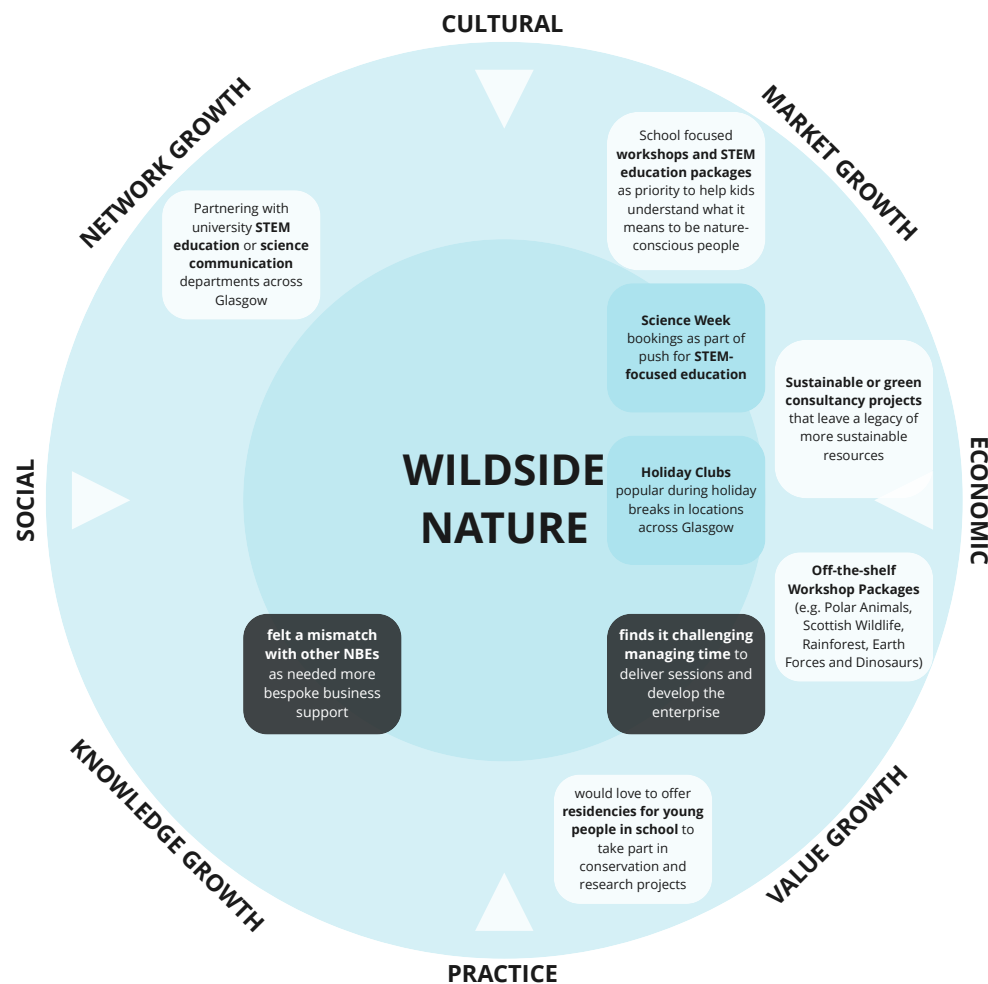
They aim to share these global experiences with children and young people by making links to ongoing science projects in the field with workshops taking place outside.



HUMAN NATURE

Delivers training in crafts for personal development and improving mental health, doing this outdoors using sustainable and/or locally sourced materials.

Having used nature and creativity to care for her own mental health since childhood, her practice helps others to do the same by now moving to an enterprise.





LUSAN

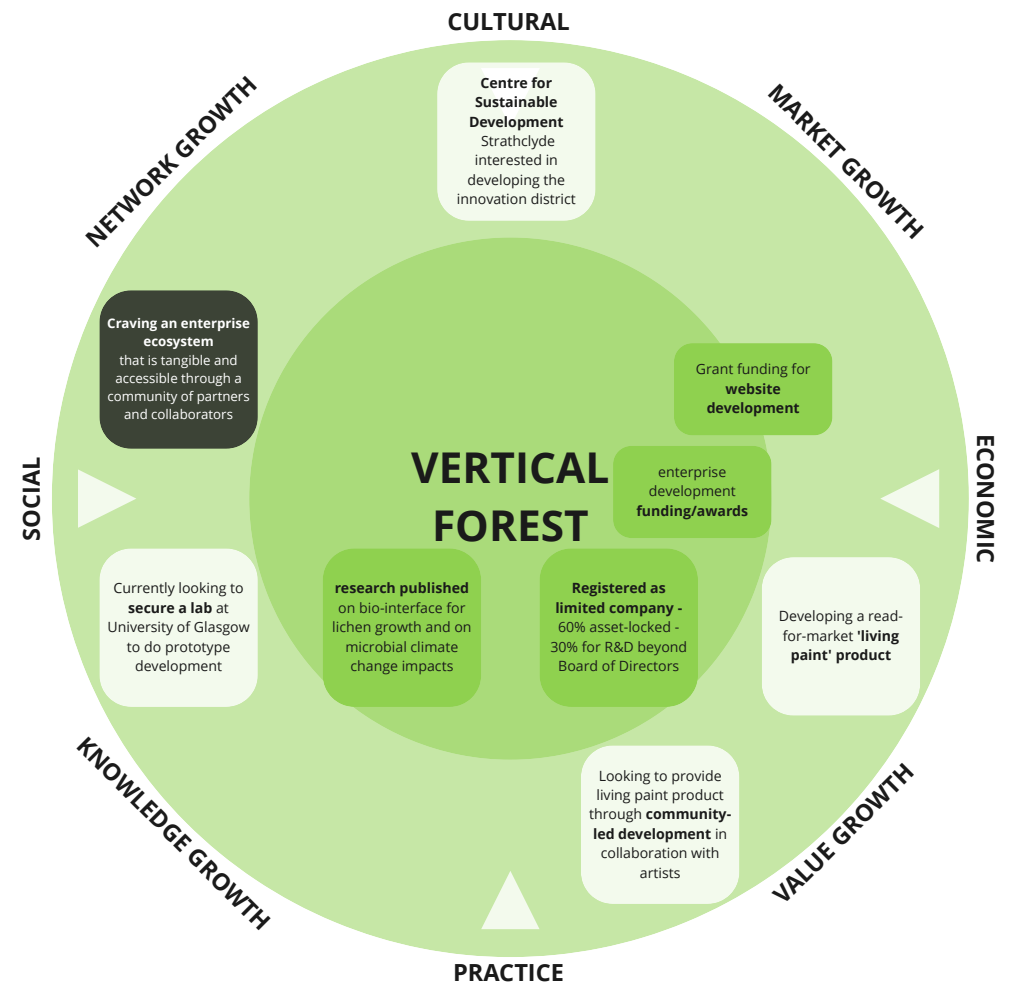
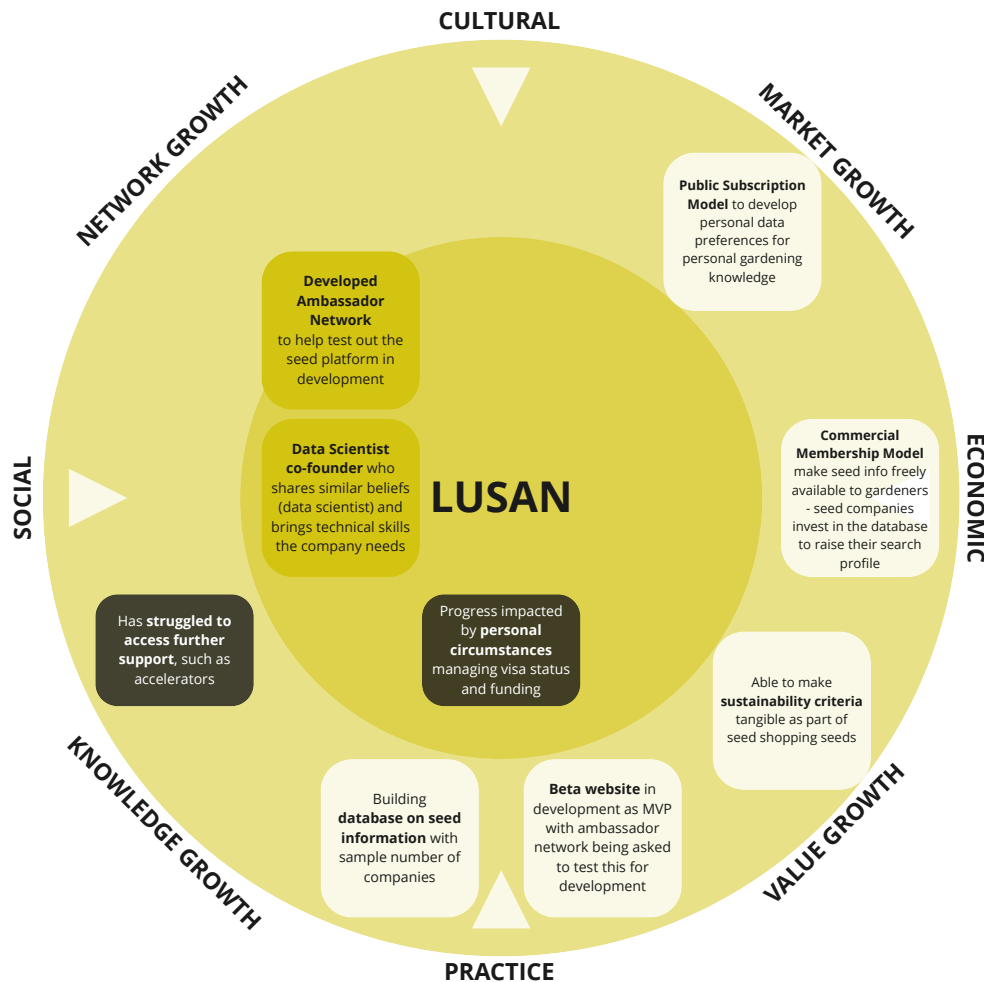
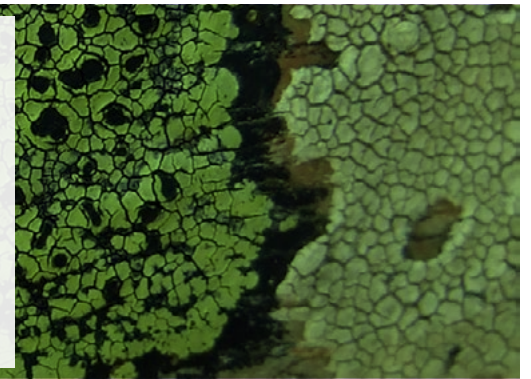
There is inadequate information about seed varieties, difficulty finding desired plants and a lack of locally grown seeds adapted to Scottish conditions.

Lusan creates a highly customised shopping experience and grows seeds focusing on open-pollinated varieties acclimatised to Scottish weather conditions.

VERTICAL FOREST

Developing a series of non-toxic coating alternatives in the form of a living paint that incorporates lichen..

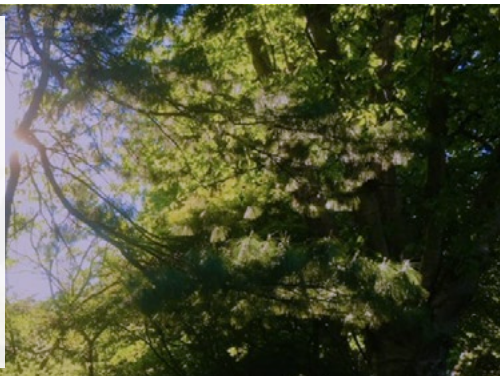
These will be sustainable, compostable and capable of fixing carbon, while extending the life cycle of underlying materials, for example concrete.



GLIMPSE

Occupational Health and Safety specialist, skilled in workshop delivery and 'bite-sized' nuggets of useful wellness tips.

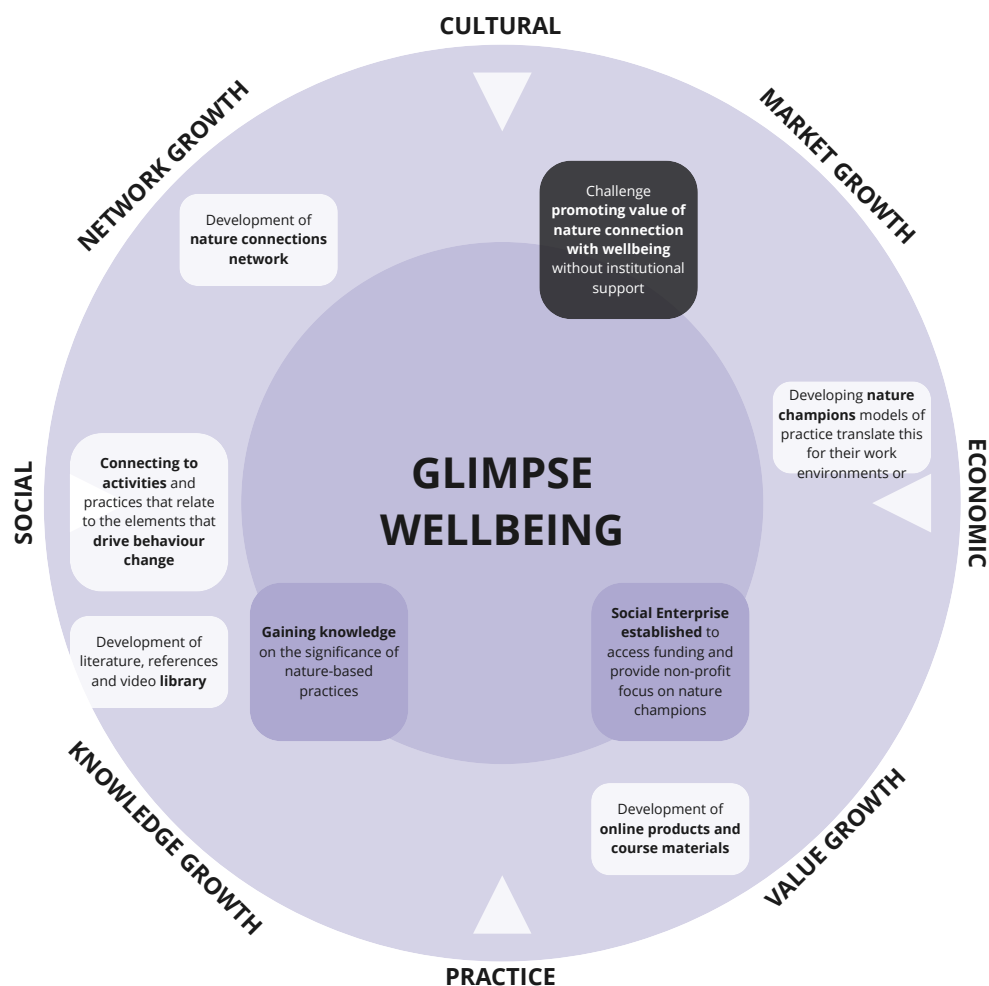
New outdoor workshops will involve nature immersion in a variety of different ways providing a broad range of skills and training around wellbeing and health in nature.



GLASGOW CO-OP FARM

A city farm, owned and run for the benefit of the people of Glasgow, converting a stalled or under-utilised site within the Ibrox and Govanhill area.

Land could be acquired through a community share offer, with management through the establishment of a workers cooperative.



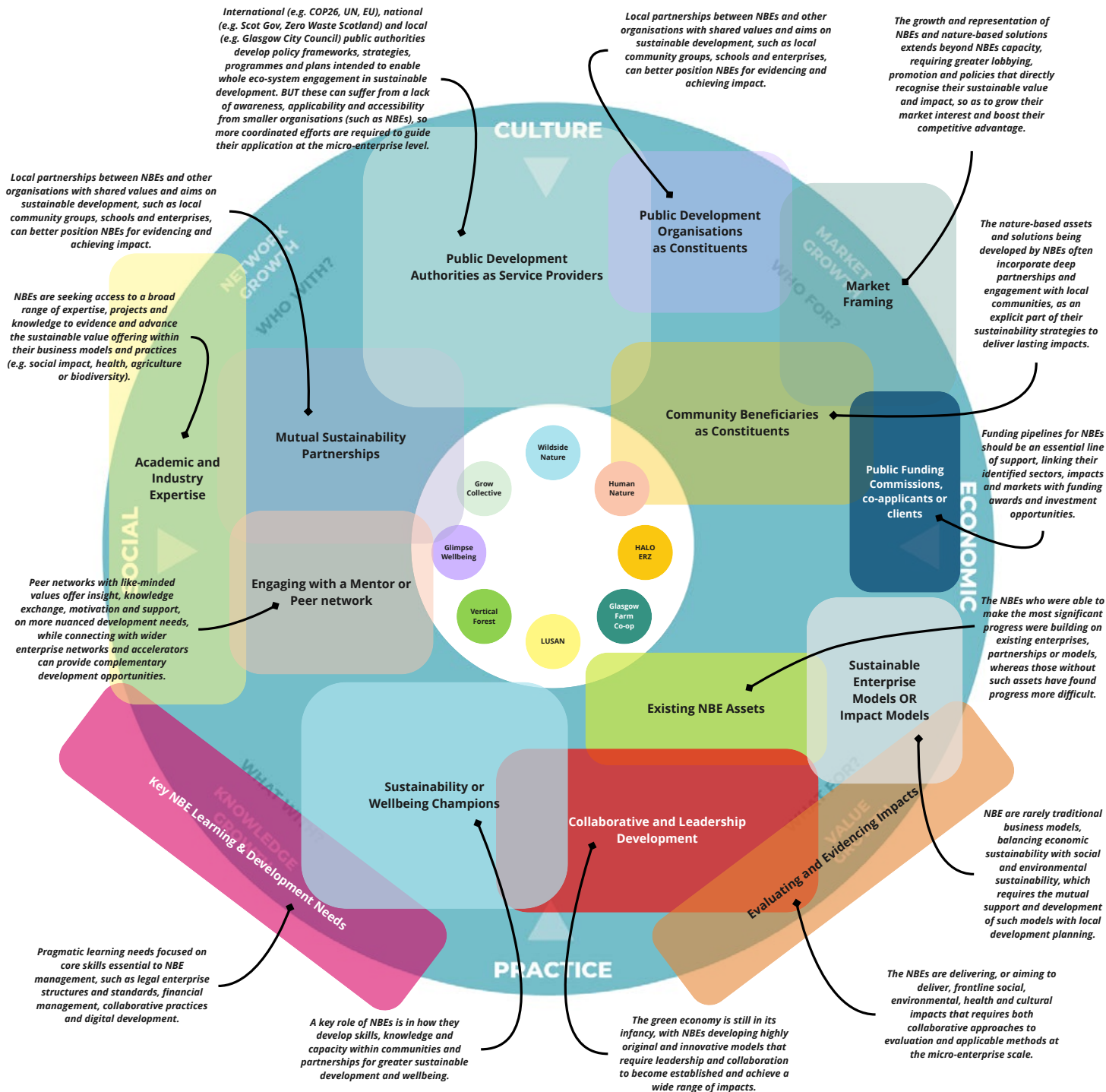
GLASGOW'S NBE ECO-SYSTEM

The above-mapped NBEs offer focused insights on their individual development and situations, however the mapping sessions also provided insight on a fledging NBE eco-system in Glasgow and where there were shared constituents and development challenges (from an NBE perspective).

These are mapped opposite as stakeholder, resource or process groupings and framed using the Creative Growth Model with annotations. This mapping aims to provide an holistic insight on the wider eco-system, of actors, resources and relationships that were identified as common across NBE development, which need to be navigated.

Future NBE support programmes and services are encouraged to review to what extent their offerings recognise and support development in relation to such an eco-system. This is also provided only as a first iteration towards building a shared understanding and, ultimately, regional network, where both formal and informal cross-connections can form shared aims and collaborations to achieve sustainable development through nature-based solutions.

The co-analysis and co-evaluation sessions with the Working Group also identified specific national and local initiatives that aim to help build this NBE eco-system. These are appended at the end of this document.



NBE ROLES IN SUSTAINABLE DEVELOPMENT

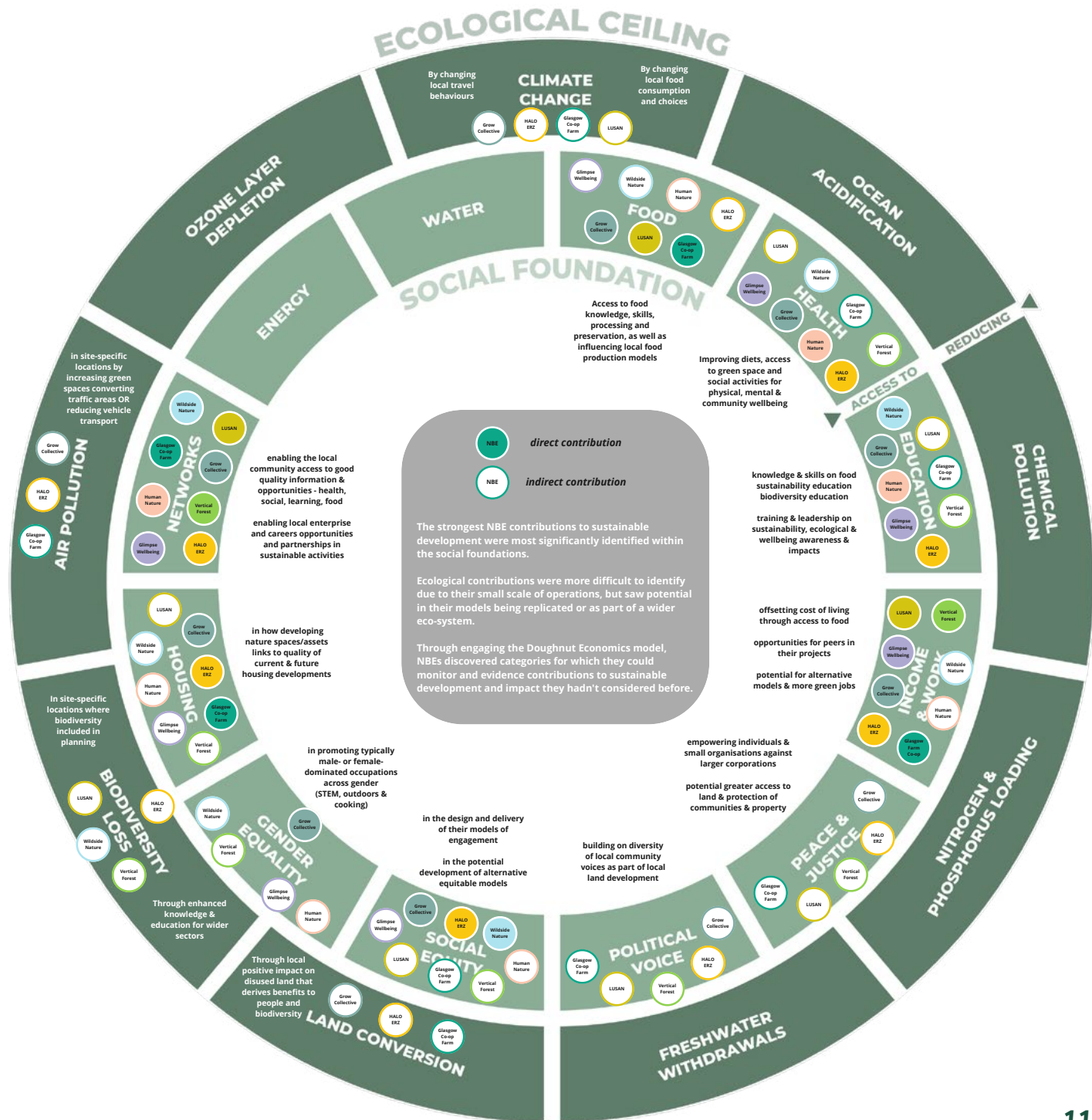
Using Raworth's Doughnut Economics model to map and categorise how each NBE understood their contribution proved to be a valuable exercise in identifying where local NBEs best fit within the wider challenges of sustainable development.

Presented here are where each enterprise, identifiable by their corresponding coloured circles, described the forms of existing, emerging or potential contributions their models were argued to offer. Those citing direct contributions are in block colours, while those citing indirect contributions are white with coloured outlines. Summaries describing NBE contributions are provided alongside each category.

The strongest NBE contributions to sustainable development were most significantly identified within the social foundations. This reflected their community-based situations and approaches.

Ecological contributions were more difficult to identify due to their small scale of operations, but saw potential in their models being replicated or as constituents of wider eco-systems or networks.

Through engaging the Doughnut Economics model, NBEs discovered categories for which they could monitor and evidence contributions to sustainable development and impact they hadn't considered before.



STRATEGIC SUSTAINABLE DEVELOPMENT PROPOSALS

As a final stage, the project wanted to go beyond simply identifying what factors can support or hinder NBE development, but also explore what regional sustainable development, inclusive of NBEs, could look like.

This was done by adopting the Framework for Strategic Sustainable Development (FSSD) (**Broman and Robert, 2017**), which combines principles of sustainability with five levels of strategic sustainable development:

systems, what are the systemic challenges?

purpose, what objectives can address these challenges?

strategic, what projects can meet these objectives?

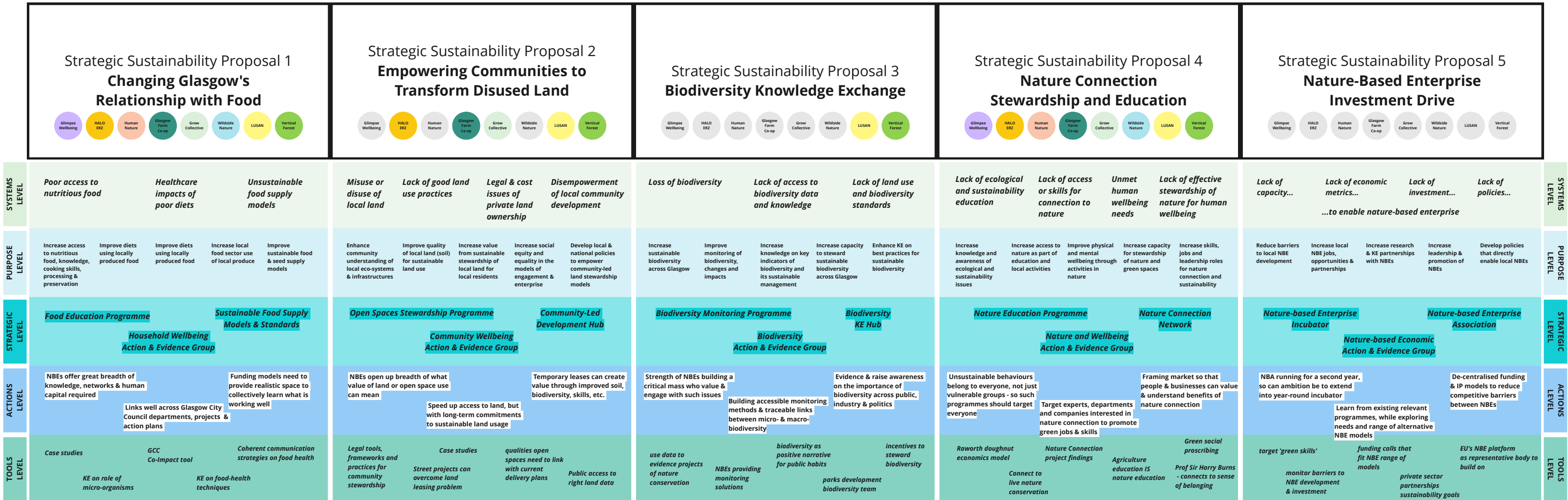
actions, what actions can deliver these projects?

and **tools**, what tools can deliver these actions?

Applying this framework enabled the co-design of five strategic sustainable development proposals (SSDPs) for Glasgow (as presented opposite), based on the identified connections, opportunities, needs and barriers between the NBEs and their networks. The proposal topics were identified and refined through contributions from the Working Group, key stakeholders and, most crucially, the NBEs.

At the top of each SSDP, the NBEs are presented as either direct potential contributors (in colour) or as indirect potential contributors (in grey). The systems level articulates the headline social, environmental and economic challenges. The purpose level drafts a set of objectives that could frame collaboration. The strategic level iterates three eco-system level projects - regional development programmes, action & evidence groups & KE hubs - to illustrate collaborations inclusive of NBEs. The actions level presents feedback on current or potential opportunities for action. The tools level simply shares key actors, methods, resources and tactics to consider.

These proposals are presented as a first iteration of what collective sustainable development can look like for Glasgow. We encourage all those interested to build on them as a reference point to support new conversations, connections and collaborations across the NBE eco-system. Is there shared recognition of such systems level challenges? Can you commit to or refine similar shared objectives? Can you contribute to Glasgow's capacity to achieve sustainable development?



CONCLUSIONS

Well-designed evaluation should focus on learning and feed into policy and delivery improvement. This report has shared a process for ongoing design-based developmental evaluation, focused on NBE development, but expanded through mapping methods and development frameworks, to understand NBE development at a regional eco-system level. This process aims to build lasting relationships and shared understanding of sustainable development challenges across Glasgow that can only be addressed collaboratively.

This process has highlighted how barriers, weaknesses or gaps in the eco-system can negatively impact NBE development and Glasgow's ability to meet key sustainability targets. This report therefore aims to enable local authorities, support services and all stakeholders to rethink, redesign and enhance accelerator and policies. To this end, a series of recommendations are listed below to complement the insights and recommendations within this report.

Continue to identify & promote NBEs

The Nature-Based Accelerator made visible an eco-system of like-minded entrepreneurs, experts and organisations around nature-based solutions. This emboldened the validity of such entrepreneurialism, but also revealed its lack of development along multiple lines. The ongoing definition, refinement and promotion of nature-based solutions and NBEs is critical to such an eco-system developing and thriving.

Differentiate & distribute NBE support needs

NBEs building from established enterprises and experience had achieved the most significant progress due to having more developed capacity and networks. Identifying the 'readiness' of NBEs for intensive accelerator activities and support could be enhanced through pre-accelerator preparation activities and facilitating access to other, relevant existing support programmes and resources.

Build NBE partnerships into sustainability monitoring

NBEs were identified as having significant potential to translate regional sustainability targets at the community or social foundations level. The

micro-level operations and relationships offer a level of expertise, engagement and potential for data collection that should be recognised as a key partnership strand for local councils, public authorities and universities.

Prioritise NBE development by reducing barriers

NBEs add significant diversity to the sustainability agenda, though land access, innovation and ecological impact need significant investment, support and policy change. Sustainable development will be an ongoing strategic priority, so including and supporting NBEs focused on meeting such challenges must match as a strategic priority by reducing barriers for their development and including NBE voices in strategic development.

Develop shared ways of speaking through frameworks

The Creative Growth Model, Doughnut Economics Model and Framework for Strategic Sustainable Development have provided meaningful ways to frame individual and collective NBE development. Such frameworks can help to clarify the connections between NBEs at the micro level and strategic plans, projects and policies at the meso or macro level. Integrating such frameworks as tools for shared understanding and ongoing dialogue can guide a stronger NBE ecosystem and evidence the collective effort for sustainable development.

Co-design the NBE Innovation Ecosystem

Eco-system level thinking is essential and inherent to NBEs and nature-based solutions. All five SSDPs should be seen as interdependent. Sustainable development will depend on the continuous knowledge exchange across these inter-related challenges with coherently distributed roles and responsibilities. This is a co-design challenge that requires a range of facilitators and processes that can enable the collaboration needed across all stakeholders.

We'd like to express our sincere thanks to all the Working Group members and all the NBEs who participated in this Design Exchange Partnership project. The aim is to disseminate and build on this pilot evaluation to support the ongoing development of Glasgow's NBE eco-system.

For more information, please contact Dr Michael Pierre Johnson at the Innovation School, GSA: m.johnson@gsa.ac.uk

APPENDIX

Project References

[Future Observatory](#)

[Creative Growth Model - Dr Michael Pierre Johnson](#)

[Doughnut Economics - Kate Raworth](#)

[Nature-Based Accelerator - Good Ideas](#)

[Nature Based Enterprise](#)

[Connecting Nature Glasgow](#)

[Centre for Civic Innovation - GCC](#)

[A Framework for Strategic Sustainable Development - Broman & Robèrt \(2017\)](#)

[United Nation's Sustainable Development Goals](#)

Useful Glasgow City Council Links Plans, Policies, Strategies and Storymaps

[Active Travel Storymap](#)

[Avenues Storymap](#)

[Circular Economy Route Map for Glasgow](#)

[City Development Plan](#)

[City Development Plan Delivery Programme](#)

[City Development Plan Interactive Maps](#)

[City Development Plan Supplementary Guidance](#)

[Climate Ready Clyde Climate and Adaption Plan](#)

[Connecting Nature Dashboard](#)

[Connecting Communities Storymap](#)

[Consultation on Open Space Strategies and Play Sufficiency Guidance](#)

[Development Plans](#)

[National Planning Framework](#)

[Ecost SubUrban](#)

[GCC Map gallery](#)

[GCC Strategic Plan 2017-2022](#)

[Glasgow City Centre Strategy](#)

[Glasgow City Food Plan](#)

[Glasgow City Region Strategies and Policies](#)

[Glasgow Climate Adaptation Plan](#)

[Glasgow Climate Plan](#)

[Glasgow Food Growing Strategy](#)

[Glasgow Liveable Neighbourhoods](#)

[Glasgow Transport Strategy](#)

[H2020 Connecting Nature](#)

[Invest Glasgow Portfolios](#)

[Meet Our Waterfront Storymap](#)

[OECD Report on Glasgow Circular Economy](#)

[Open Space Strategy](#)

[Open Space Strategy Map](#)

[Sustainable Glasgow Charter](#)

[Sustainable Glasgow Storymap](#)

[Thriving City – The History of the High St Storymap](#)

[Transforming Planning](#)